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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/454,316 12/03/99 CHEN

S 40458

EXAMINER

IMS2/0906

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ART UNIT

PAPER NUMBER

1754
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09/06/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/454,316

Applicant(s)

CHEN ET AL.

Examiner

Edward M. Johnson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 20-40 is/are pending in the application.
- 4a) Of the above claim(s) 26-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 20-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-16 and 23-25, drawn to a product and process of making a catalyst for oxyacylation, classified in class 502, subclass 352.

II. Claims 26-40, drawn to a method for producing allyl acetate, classified in class 524, subclass 39.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product could be used to practice a materially different process, such as a process for cleaning exhaust gases or catalytic dehydrogenation.

Because these inventions are distinct for the reasons given above, have acquired a separate status in the art as shown by their different classification, and the search required for

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Group I is not required for Group II, restriction for examination purposes as indicated is proper.

2. Newly submitted claims 26-40 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: a method for producing allyl acetate was not originally claimed.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 26-40 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim appears to be a use limitation and it is unclear how the claim limits the process of making the catalyst.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-16 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Bartsch 4,158,737.

Regarding claim 1, Bartsch '737 discloses a catalyst comprising palladium metal as the main catalyst (see column 1, lines 10-15), tin or a mixture of tin and additional metal as the promoter (see column 5, lines 47-52), in combination with an alkali or alkaline earth metal compound (see abstract and column 3, lines 64-68), on the outer surface of a porous carrier (see column 3, line 25), being used in the process for producing allyl acetate (see abstract).

Regarding claim 2, Bartsch '737 discloses gold (see abstract), copper (see abstract), cadmium, bismuth or mixtures thereof (see column 5, lines 47-55).

Regarding claims 3 and 4, Bartsch '737 discloses palladium (see column 5, line 29) in the range of 0.5 to 2.0% weight (see column 5, line 41).

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Regarding claims 5, 6, 7, and 8, Bartsch '737 discloses tin and mixtures of tin with other metals in the range of 0.05 to 0.6% weight (see column 5, lines 47-55).

Regarding claims 9 and 10, Bartsch '737 discloses alkali or alkaline earth metal compound in the range of 0.5 to 10% weight (see column 5, line 45).

Regarding claim 11, Bartsch '737 discloses gold (see abstract).

Regarding claim 12, Bartsch '737 discloses copper (see abstract).

Regarding claim 13, Bartsch '737 discloses cadmium and bismuth (see column 5, line 49).

Regarding claim 14, Bartsch '737 discloses the alkali and alkaline earth metal carboxylates and the formates and acetates of sodium, potassium, and lithium (see column 5, lines 33-39).

Regarding claim 15, Bartsch '737 discloses potassium hydroxide, acetate, formate, and carboxylates (see column 5, lines 12-13 and 33-39).

Regarding claim 16, Bartsch '737 discloses alumina (see abstract).

Regarding claim 23, Bartsch '737 discloses other promoters and catalytic metals (see column 4, lines 3-7).

Claim Rejections - 35 USC § 103

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7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartsch 4,158,737 as applied to claim 1 above, and further in view of Sennewald et al. 3,655,747.

Regarding claim 20, Sennewald '747 discloses impregnating the carrier with palladium and promoter metals in oxidative state (see column 4, lines 15-20), then reducing the metals from an oxidative state into metallic state (see column 4, lines 23-25), impregnating the metallic state metals-supporting carrier with a solution of alkali or alkaline earth metal compounds (see column 4, line 30, and column 6, lines 12-15), and then drying (see column 4, lines 30-31).

Regarding claim 21, Sennewald '747 discloses hydrazine hydrate solution as reducing agent (see column 4, lines 23-24).

It is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the impregnation and reduction method of Sennewald '747 with

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the catalyst of Bartsch '737 because Bartsch specifies the use of Sennewald's method to impregnate a noble metal catalyst to a carrier (see Bartsch '737, column 5, line 28).

Regarding claim 24, Bartsch '737 discloses other promoters and catalytic metals (see column 4, lines 3-7).

Regarding claim 25, process of using limitations are not generally given patentable weight in process of making claims. However, Bartsch '737 discloses producing allyl acetate (see abstract).

9. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bartsch '737 and Sennewald '747 as applied to claims 1 and 20 above, and further in view of Kronig et al. 3,822,308.

Regarding claim 22, Kronig '308 discloses ethylene gas as reducing agent (see column 4, lines 29-31).

It is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the ethylene in Kronig '308 with the catalyst and method in Bartsch and Sennewald because Bartsch specifies the use of both Sennewald's and Kronig's method for impregnating noble metal catalysts to carriers (see Bartsch '737, column 5, lines 28-29).

Response to Arguments

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10. Applicant's arguments filed 7/30/01 have been fully considered but they are not persuasive.

The objections and rejection under 35 USC 112(2) has been withdrawn in view of Applicant's amendment. A new rejection under 35 USC 112(2) has been added in view of Applicant's amendment.

It is argued that the Bartsch patent, whether considered along or in combination fails to teach or otherwise suggest Applicant's claimed invention or the significant performance advantages provided thereby. This is not persuasive for failing to comply with 37 CFR 1.111(b) because it amounts to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

It is argued that however, that citation clearly cannot sustain the instant rejection. This is not persuasive because Applicant claims a catalyst using the open language "comprising" to specify palladium as the "main" catalyst and tin as the promoter. The claim lacks novelty because Bartsch '737 discloses a catalyst comprising palladium metal as the main catalyst (see column 1, lines 10-15), tin or a mixture of tin and additional metal as the promoter (see column 5, lines 47-52), in combination with an alkali or alkaline earth metal compound (see

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abstract and column 3, lines 64-68), on the outer surface of a porous carrier (see column 3, line 25), being used in the process for producing allyl acetate (see abstract).

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M.


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Johnson whose telephone number is 703-305-0216. The examiner can normally be reached on M-F 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on 703-308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3599 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

EMJ
August 26, 2001


STEVEN P. GRIFFIN
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